

A NEW SPECIES OF *EUGENIA* (MYRTACEAE) FROM THE MONTEVERDE REGION, COSTA RICA

Fred R. Barrie

Missouri Botanical Garden

P.O. Box 299, St. Louis, Missouri 63166, U.S.A.

and

Botany Department, The Field Museum

1400 S. Lake Shore Drive, Chicago Illinois 60605

fbarrie@fieldmuseum.org

ABSTRACT

A new species, ***Eugenia haberi*** Barrie (Myrtaceae), is described from the Pacific slope in Guanacaste and Puntarenas provinces of Costa Rica. It may be distinguished from *E. rhombea* by characters of the leaves and flowers, especially the calyx. The species is apparently restricted to cliff edges at elevations of 1100 to 1350 meters.

ABSTRACT

Se describe una nueva especie, ***Eugenia haberi*** Barrie (Myrtaceae), de las provincias de Guanacaste y Puntarenas en el lado pacífico de Costa Rica. Puede diferenciarse de *E. rhombea* por caracteres de las hojas y flores, especialmente el cáliz. La especie está restringida aparentemente a bordes de acantilados a elevaciones de 1100 a 1350 metros.

INTRODUCTION

With about 700 species, *Eugenia* is the largest of the New World genera of Myrtaceae. Forty-nine *Eugenia* are currently known to occur in Costa Rica, including 21 recently described (Barrie 2005) and the species described here. *Eugenia* is characterized by a racemose or fasciculate inflorescence, flowers with an open, four-lobed calyx and an embryo that is an undifferentiated mass of tissue.

Eugenia haberi Barrie, sp. nov. (**Fig. 1**). TYPE: COSTA RICA: PUNTARENAS. Monteverde, Eston's Cliff Edge, 1350 m, 1 Jan 1979 (fl, fr), W. Haber 263 (HOLOTYPE: MO!; ISOTYPES: MEXU!, MO!, NY!).

Eugenia rhombea (O. Berg) Krug et Urb. aemulans, differt foliis anguste ellipticus, pedicellis brevioribus et lobis calyce minoribus.

Small tree; young growth glabrous or with a few hairs on the margins of the bracts, bracteoles and calyx. Branchlets compressed at the outer nodes; bark reddish brown. Leaves narrowly elliptic, the blades $3-8 \times 1-2.5$ cm, 2–5 times as long as wide, coriaceous, drying a concolorous green or somewhat darker above, the midvein and margins tan; midvein convex on both surfaces, often with a narrow ridge above; lateral veins 15–20 per side, straight, often obscure above; marginal veins similar to the laterals, straight, ca. 1 mm from the margins; glands numerous on both surfaces, sometimes punctuate above; base narrowly cuneate to weakly concave; margins cartilaginous, decurrent along the petiole; apex acuminate to caudate-acuminate, the tip ultimately rounded; petioles 2–5 mm long, flattened or weakly concave dorsally. Inflorescences axillary, racemose, solitary; axis $1-5 \times 1$ mm long; flowers 4–10; bracts 0.5 mm in diameter, persistent, circular, the margins scarious, with or without a few hairs; buds 2–3 mm long, ovoid. Flowers pedicellate, the pedicels 4–12 mm long, with prominent pellucid glands; bracteoles $0.7-1 \times 0.5$ mm, persistent at least through anthesis, ovate, prominently glandular, the base free

MISSOURI
BOTANICAL GARDEN
HERBARIUM

Nº 2740686



HOLOTYPE of: *Eugenia haberi* Barrie

F.R. Barrie 2006
MISSOURI BOTANICAL GARDEN [MO]

COSTA RICA
Puntarenas

Family: MYRTACEAE

Eugenia cf. *costaricensis* Berg

Monteverde, Eston's cliffedge, 1350 m.
Small tree.

W. Haber 263 2 January 1979.
MISSOURI BOTANICAL GARDEN HERBARIUM [MO]

FIG. 1. Holotype of *Eugenia haberi* Barrie (Haber 263, MO).

or slightly connate, the margins entire or scarious, with or without a few hairs; hypanthium 1.5–2 mm long, campanulate; calyx lobes in subequal pairs, $0.7\text{--}1 \times 0.5$ mm, elliptic, prominently glandular, the margins entire or with a few hairs, the apex rounded; petals ca. 4×3.5 mm, ovate, the margins with or without a few hairs, the apex rounded; disk 1.2–2 mm in diameter, glabrous; stamens ca. 50, 3–5 mm long; style 5–6 mm long, glabrous. Fruits $6\text{--}11 \times 6\text{--}10$ mm, globose or obovoid, mature color black; pericarp thin-walled, glabrous; calyx persistent but reduced.

Eugenia haberi is a small tree found along cliff edges on the Pacific slope in Guanacaste and Puntarenas provinces at elevations of 1100–1350 meters. In many respect it resembles *E. rhombea* (O. Berg) Krug & Urb., a species of coastal areas with a circum-Caribbean distribution. Although *E. rhombea* occurs in both Panama and Nicaragua, it has yet to be found in Costa Rica. The similarities between the two species include general habit, the overall absence of vestiture, with hairs restricted to the margins of the bracts, bracteoles and perianth, and the coriaceous leaves with cartilaginous margins. The two may be differentiated by the shape of the leaves, which in *E. haberi* is narrowly elliptic with a tapering, narrowly cuneate base and an acuminate to caudate-acuminate apex. In *E. rhombea*, the leaves are ovate to elliptic with a rounded or broadly cuneate base and an acute apex. The inflorescences in *E. rhombea* are often superficially fasciculate, and the pedicels of the flowers and fruits are up to 30 mm long. In *E. haberi* the inflorescence rachis may be short but it is apparent and the pedicels do not exceed 12 mm. The calyx lobes of *E. rhombea* are much larger and more prominent, up to 4 mm long and 2 mm wide, and are prominent in flower and fruit, retaining a pale color that contrasts with the dark body of the mature fruit. The calyx persists but is not conspicuous on the fruits of *E. haberi*.

Etymology.—The species is named for Bill Haber, the collector of the type, whose deep and extensive knowledge of the flora and fauna of the Monteverde region is exceeded only by his generosity in sharing the information with others.

Additional collections examined. **COSTA RICA. Guanacaste:** Cantón Liberia, Parque Nacional Guanacaste, Estación Cacao, 1100 m, $10^{\circ}55'45''\text{N}$, $85^{\circ}28'15''\text{W}$, 22 Nov 1990 (v?) C. Chávez 391 (INB); Estación Cacao, 7 May 1991, (fr) C. Chávez 553 (CR, F, INB, MO); Estación Cacao, 11 Apr 1991 (fr), C. Chávez 541 (CR, INB, MO). **Puntarenas:** Monteverde, Hoge Uppan, 10 Feb 1979 (fl) W.A. Haber 263 (CR); Monteverde, lower community on Pacific slope, 1350 m, $10^{\circ}18'\text{N}$, $84^{\circ}48'\text{W}$, 5 Jul 1991 (fr) W. Haber & C. Ivey 10720 (CR, F, INB).

ACKNOWLEDGMENTS

This research was conducted while in residence in the Botany Department of the Field Museum. I thank the department and the chair, Michael O. Dillon, for their generous, continuing support. Thanks to Bill Haber for sharing his knowledge of the field characteristics of this species, and to Bruce Holst, Lucia Kawasaki, and Les Landrum for reviewing this manuscript.

REFERENCES

BARRIE, F.R. 2005. Thirty-five new species of *Eugenia* (Myrtaceae) from Mesoamerica. *Novon* 15:4–49.